AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1.-23. (Cancelled).

24. (Currently Amended) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining a desired area of a load to be filled with product using at least two of a height sensor, a length sensor, and a width sensor;

automatically filling the desired area with product; and

determining when the desired area is filled using at least two of the height sensor, the length sensor, and the width sensor.

25. (Currently Amended) The method of claim 24, wherein defining the desired area includes positioning at least one of the length sensor, the width sensor, and the height sensor to define the respective length, width, or height of the desired area.

26. (Original) The method of claim 24, wherein filling the desired area includes sensing the location of previously placed product on the load.

27. (Original) The method of claim 24, wherein filling the desired area includes sensing the location of the pallet.

28. (Original) The method of claim 26, wherein filling the desired area further includes depositing the product upon the sensed location of the product previously placed on the load.

29. (Currently Amended) The method of clam 24, wherein filling the desired area includes sensing a desired location of the product and placing the product to fill the desired area.

30. (Original) The method of claim 24, wherein defining the desired area includes setting a desired height of the load by positioning the height sensor.

31. (Original) The method of claim 24, wherein defining the desired area includes setting a desired length of the load by positioning the length sensor.

32. (Original) The method of claim 31, wherein positioning the length sensor includes adjusting the position of the length sensor to define the length of a product row on a conveyer.

33.-37. (Cancelled).

38. (Currently Amended) The method of claim 24, wherein filling the desired area with product includes executing the same logic sequence in a controller for at least two consecutive transporting cycles.

39.-42. (Cancelled).

43. (Currently Amended) The method of claim 24, wherein determining when the desired area is filled includes monitoring the at least two of the height sensor, the length sensor, and the width sensor for a signal indicating that at least two of a desired height, length, and width of the load is reached.

44. (Currently Amended) The method of claim 43, wherein determining when the desired area is filled further includes receiving a signal from the at least two monitored sensors at a controller.

45. (Original) The method of claim 44, wherein the controller is comprised of more than one processor.

46. (Currently Amended) The method of claim 24, further including pushing a completed load from a loading zone of a the palletizer in which the desired area is defined.

47. (Original) The method of claim 24, wherein automatically filling the desired area includes one of placing a product unit on the load to build a row, placing a product row on the load to build a layer, and placing a product layer on the load to build the load.

48. (Currently Amended) A method of building a load with product from an infeed area, the method comprising:

automatically moving a product from the infeed area to a load building area;

automatically depositing the product on the load;

automatically repeating the moving and depositing steps by repeating a single logic sequence for at least two consecutive moving and depositing steps; and

automatically determining when the load is completely built using at least two of a height sensor, a length sensor, and a width sensor.

49. (Original) The method of claim 48, wherein the automatically moving and automatically depositing steps define a transport cycle, and wherein a controller executes the single logic sequence for each transport cycle of the load.

50. (Original) The method of claim 48, wherein the logic sequence is defined in computer executable code configured to be executed by a processor.

51. (Original) The method of claim 48, wherein automatically repeating the automatically moving and automatically depositing steps includes loading a first product having a first size onto a load and loading a second product having a second size onto the same load.

52. (Original) The method of claim 48, wherein repeating the single logic sequence for at least two consecutive moving and depositing steps includes:

moving and depositing a first product having a first size in first moving and depositing steps; and

moving and depositing a second product having a second size in second, successive moving and depositing steps.

53. (Original) The method of claim 48, further including building a second load with second product having a second size, different than the size of the first product, wherein when building the second load, a controller repeats the same single logic sequence.

54. (Original) The method of claim 48, further including sensing a desired location of the product and placing the product on the load.

55.-61. (Cancelled).

62. (Original) The method of claim 48, wherein moving and depositing the product includes executing the single logic sequence in a controller, and repeating the single logic sequence for at least two consecutive transporting cycles.

63. (Cancelled).

64. (Cancelled).

65. (Original) The method of claim 48, wherein determining when the load is completely built includes monitoring at least two of a length, a width, and a height sensor for a signal indicating that at least two of a desired length, a desired width, and a desired height of the load are reached; and

receiving the signal from the at least two monitored sensors at a controller.

66. (Original) The method of claim 65, wherein the controller includes more than one processor.

67. (Currently Amended) A method of building a load with product from an infeed area, the method comprising:

defining a desired area of the load to be filled;

automatically transporting product to the desired area of the load;

automatically repeating the transporting step by repeating a single logic sequence for at least two consecutive transporting cycles; and

automatically determining when the load is completely built <u>using at least two of a height sensor, a length sensor, and a width sensor</u>.

68. (Currently Amended) The method of claim 67, wherein defining a desired area includes positioning first and second sensors to define the <u>desired</u> area.

69. (Original) The method of claim 68, wherein the first and second sensors are one of the following sets of sensors: height and width sensors; height and length sensors; and length and width sensors.

70. (Original) The method of claim 67, further including repeating the single logic sequence for each transporting cycle of the load.

71. (Original) The method of claim 67, wherein the single logic sequence is defined in computer executable code configured to be executed by a processor.

72. (Original) The method of claim 67, wherein automatically repeating the transporting step includes loading a first product having a first size onto a load and loading a second product having a second size onto the same load.

73. (Original) The method of claim 67, wherein repeating the single logic sequence for at least two consecutive transporting cycles includes:

transporting a first product having a first size in a first transporting cycle; and

transporting a second product having a second size in second, successive transporting cycle.

74. (Original) The method of claim 67, further including building a second load with second product having a second size, different than the size of the first product,

wherein when building the second load, a controller repeats the same single logic sequence.

75.-82. (Cancelled).

83. (Original) The method of claim 67, wherein transporting the product includes executing the single logic sequence in a controller, and repeating the single logic sequence for at least two consecutive transporting cycles.

84. (Cancelled).

85. (Cancelled).

86. (Original) The method of claim 67, wherein determining when the load is completely built includes monitoring at least two of a length, a width, and a height sensor for a signal indicating that at least two of a desired length, a desired width, and a desired height of the load are reached; and

receiving the signal from the at least two monitored sensors at a controller.

87.-172. (Cancelled).

173. (Currently Amended) A method of building a load with product from an infeed area, the method comprising:

defining a desired area of a load to be filled with product using at least two of a height sensor, a length sensor, and a width sensor;

automatically filling the desired area with product by executing a first logic sequence in a controller, and repeating the first logic sequence for at least two transporting cycles, and executing a second logic sequence in the controller for a different transporting cycle while building the load; and

determining when the <u>desired</u> area is filled <u>using at least two of the height sensor, the length sensor, and the width sensor</u>.

174. (New) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining a desired area of a load to be filled with product using a height sensor and at least one of a length sensor and a width sensor, wherein using the height sensor includes positioning the height sensor to set a desired height of the load;

automatically filling the desired area with product; and

determining when the desired area is filled.

175. (New) The method of claim 174, wherein defining the desired area further includes positioning at least one of the length sensor and the width sensor to define a respective length or width of the desired area.

176. (New) A method of building a load with product from an infeed area, the method comprising:

automatically moving a product from the infeed area to a load building area;

automatically depositing the product on the load;

automatically repeating the moving and depositing steps by repeating a single logic sequence for at least two consecutive moving and depositing steps;

wherein the first moving and first depositing steps load a first product having a first size onto the load, and wherein the second moving and second depositing steps load a second product having a second size different from the first size onto the load; and

automatically determining when the load is completely built.

177. (New) The method of claim 176, further including building a second load with the second product having the second size, different than the size of the first product, wherein when building the second load, a controller repeats the same single logic sequence.

178. (New) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining a desired space to be filled with product by physically establishing at least two of a height threshold, a length threshold, and a width threshold;

automatically filling the desired space with product; and

automatically signaling that the desired space is filled when product reaches at least two of the height threshold, the length threshold, and the width threshold.

179. (New) The method of claim 178, wherein defining a desired space to be filled with product further includes defining a desired area of a load to be filled with product.

180. (New) The method of claim 178, wherein physically establishing at least two of a height threshold, a length threshold, and a width threshold includes positioning at least two of a height detector, a length detector, and a width detector.

181. (New - Withdrawn) The method of claim 178, wherein defining a desired space of a load to be filled with product further includes defining a desired volume of a load to be filled with product.

182. (New) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining boundaries of a desired area of a load to be filled with product by physically establishing at least two of a load height, a load length, and a load width;

automatically filling the desired area with a quantity of product; and

automatically signaling when the desired area is filled when product reaches at least two of the load height, the load length, and the load width.

183. (New) The method of claim 182, wherein automatically filling includes filling with products of various sizes, and wherein variation in product size does not alter the at least two physically established load height, load length, and load width.

184. (New) The method of claim 182, wherein automatically filling the desired area with a quantity of product includes filling the desired area with one or more rows of product to form a layer of product.

185. (New) The method of claim 184, wherein the load width is unaffected by the quantity of rows used to form the layer.

186. (New) The method of 182, wherein automatically filling the desired area with a quantity of product includes filling the desired area with one or more layers of product to form the load.

187. (New) The method of claim 186, wherein the load height is unaffected by the quantity of layers used to form the load.

188. (Withdrawn - New) The method of claim 182, wherein defining boundaries of a desired area of a load to be filled with product further includes physically defining the load height, the load length, and the load width to define boundaries of a desired load volume.

189. (New) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining a desired area of a load to be filled with product by establishing physical

markers delimiting at least two of a load height, a load length, and a load width;

automatically filling the desired area with product; and

automatically signaling when the desired area is filled when product reaches at

least two of the load height, the load length, and the load width.

190. (New) The method of claim 189, wherein automatically filling the desired

area with product includes varying the size of product used to fill the desired area

without altering the desired area.

191. (New) The method of claim 189, wherein automatically filling the desired

area with product further includes filling the desired area with a plurality of rows of

product to form a layer of product, and wherein each row has a row width.

192. (New) The method of claim 191, wherein the load width is unaffected by

variations in row width between each row.

193. (New) The method of 189, wherein automatically filling the desired area with

product further includes filling the desired area with a plurality of layers of product to

form the load, and wherein each layer has a layer height.

194. (New) The method of claim 193, wherein the load height is unaffected by

variations in layer height between each layer.

195. (Withdrawn - New) The method of claim 189, wherein defining a desired area of a load to be filled with product further includes establishing physical boundaries delimiting the load height, the load length, and the load width to define a desired load volume.

196. (New) A method of building a load with product from an infeed area of a palletizer, the method comprising:

defining a boundary to be filled in with product by physically setting at least two of a height dimension, a length dimension, and a width dimension of the load;

automatically filling in the boundary with product, wherein the height dimension, the length dimension, and the width dimension of the load remain substantially constant as product characteristics vary; and

automatically signaling that the boundary is filled in when product reaches at least two of the height dimension, the length dimension, and the width dimension of the load.

197. (New) The method of claim 196, wherein automatically filling in the boundary with product includes filling in the boundary with a plurality of rows of product having varying row widths.

198. (New) The method of claim 196, wherein automatically filling in the boundary with product includes filling in the boundary with a plurality of layers of product having varying layer heights.

199. (New) The method of claim 196, wherein defining a boundary to be filled in with product includes defining an area to be filled in with product by physically setting two of the height dimension, the length dimension, and the width dimension.

200. (Withdrawn - New) The method of claim 196, wherein defining a boundary to be filled in with product includes defining a volume to be filled in with product by physically setting the height dimension, the length dimension, and the width dimension.

201. (New) A method of building loads with product from an infeed area of a palletizer, the method comprising:

defining a boundary of a desired area of a first load to be filled with product of a first size by physically delineating at least two of a desired height of the first load, a desired length of the first load, and a desired width of the first load;

automatically filling the desired area with as much product of the first size as needed to meet the boundary;

moving the first load away; and

automatically filling the desired area with as much product of a second size different from the first size as needed to meet the boundary without adjusting the boundary.

202. (Withdrawn - New) The method of claim 201, wherein defining a boundary of a desired area of a first load further includes physically delineating the desired height of the first load, the desired length of the first load, and the desired width of the first load, to define a boundary of a desired volume.